UNITED STATES PATENT AND TRADEMARK OFFICE

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OKAMOTO & BENEDICTO, LLP
P.O. BOX 641330
SAN JOSE, CA 95164

EXAMINER
PENG, FRED H

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _21 July 2008_.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
      closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1,4,7,8,10-14,19,25-30 and 35-38_ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1,4,7,8,10-14,19,25-30 and 35-38_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All b) ☐ Some * c) ☐ None of:
       1. ☐ Certified copies of the priority documents have been received.
       2. ☐ Certified copies of the priority documents have been received in Application No. _____.
       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
             application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

1.   Applicant's request for reconsideration of the finality of the rejection of the last Office action is

persuasive and, therefore, the finality of that action is withdrawn.

DETAILED ACTION

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1, 19, 35, 36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Morley et al (WO 99/59355) in view of Yoshiura et al (US 6,499,105 B1) and Chauvel et al (US

6,369,855).

            Regarding Claims 1 and 19, Morley discloses a system and corresponding method for

securely transmitting and displaying visual data (page 6 lines 5-32) comprising:

            an encryption apparatus (FIG.2A, element 110)for encrypting the visual data, whereby

encrypted visual data is formed (page 9 lines 20-30);

            means (FIG.2A, elements 114, 106) for transporting the encrypted visual data from the

encryption apparatus to a display facility (page 10 lines 1-12); and

            a display apparatus (FIG.2B, element 128A) located at the display facility that receives

the encrypted visual data, the display apparatus decrypting the encrypted visual data such that an

electronic version of the visual data is maintained within integrated circuits that are substantially

inaccessible, the display apparatus displaying the visual data as a visual image (page 11 lines 9-

15; page 10 lines 1-4; page 45 lines 3-8; integrated circuits is inherent),

Morley also discloses using a decryption key that resides in the display apparatus for decrypting the visual data (page 21 lines 16-32; page 22 lines 1-26; page 44 lines 13-25) and securely storing the decryption key within the display apparatus so as to be inaccessible from outside the display apparatus (page 22 lines 20-22; page 10 lines 1-4; page 42 lines decryption key is part of decryption function and is housed in secure chassis and is not accessible from outside), further discloses the encryption apparatus uses encryption keying information for encrypting the visual data (page 21 lines 15-24).

Furthermore, Morley acknowledges that any number of a wide variety of encryption techniques may be used (page 21 lines 15-22). Morley fails to specifically disclose using a public and private key to decrypt the data and being generated within display apparatus and communicating the public key from the display apparatus to an encryption apparatus.

In an analogous art, Yoshiura teaches to use public and private keys for encryption and being generated within display apparatus and communicating the public key from the display apparatus to an encryption apparatus (FIG.2, elements 100, 200; Col 11 lines 54-67; Col 12 lines 1-3; purchaser 200 is the display apparatus side generates the private and public keys and send the public key to the provider 100 to encrypt the content).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Morley with a private and a public keys for encryption as taught by Yoshiura so that the data like visual data was more secure and protected during transmission.

Morley discloses a decryption integrated circuit (FIG.11, element 296; inherent) and a display integrated circuit (132A; inherent), and pass the visual data from the decryption integrated circuit to the display integrated circuit.

Morley does not specifically disclose the decryption integrated circuit encodes the visual data and the display integrated circuit decodes the visual data.

In an analogous art, Chauvel discloses the decryption integrated circuit encodes the visual data in NTSC format with Macro vision copy protection (FIG.1A, 200; FIG.1B; Abstract; Col 1 lines 28-31; Col 5 lines 23-32, 64-67) and inherently discloses the display integrated circuit

such as NTSC decoder, an integrated circuit or part of integrated circuit, in the TV display (130,

150) decodes the visual data.

It would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify the combined method of Morley and Yoshiura to include the decryption integrated

circuit encodes the visual data in NTSC format with Macro vision copy protection and the display

integrated circuit decodes the visual data as taught by Chauvel to provide a standard protection

mechanism for copyrighted program on a single chip while lower overall system cost and reduce

the equipment size.

Regarding Claim 35, Morley shows a display apparatus for displaying encrypted visual

data comprising circuit elements that are inaccessible, the elements comprising a decryption

circuit and a display circuit for displaying the visual data, such that an electronic version of the

data is maintained within circuit elements (page 6 lines 5-32, page 9 lines, 20-30, page 10 lines 1-

12, page 11 lines 9-15, page 11 lines 9-15).

Morley also discloses the display apparatus uses a decryption key for decrypting the

encrypted visual data (page 21 lines 16-32, page 22 lines 1-26, page 44 lines 13-25), wherein the

decryption key resides within the display apparatus so as to be inaccessible from outside the

display apparatus (page 22 lines 20-22; page 10 lines 1-4; page 42 lines decryption key is part of

decryption function and is housed in secure chassis and is not accessible from outside), and

wherein the encrypted visual data was previously generated using a encryption key

corresponding to the private key (page 21 lines 15-24).

Furthermore, Morley acknowledges that any number of a wide variety of encryption

techniques may be used (page 21 lines 15-22). Morley fails to specifically disclose using a public

and private key to decrypt the data and being generated within display apparatus and

communicating the public key from the display apparatus to an encryption apparatus.

In an analogous art, Yoshiura teaches to use public and private keys for encryption and

being generated within display apparatus and communicating the public key from the display

apparatus to an encryption apparatus (FIG.2, elements 100, 200; Col 11 lines 54-67, Col 12 lines 1-3, purchaser 200 is the display apparatus side generates the private and public keys and send the public key to the provider 100 to encrypt the content).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Morley with a private and a public keys for encryption as taught by Yoshiura so that the data like visual data was more secure and protected during transmission.

Morley does not specifically disclose encoding the visual data before passing to display.

In an analogous art, Chauvel discloses the decryption integrated circuit encodes the visual data in NTSC format with Macro vision copy protection (FIG.1A, 200; FIG.1B; Abstract; Col 1 lines 28-31; Col 5 lines 23-32, 64-67) and inherently discloses a display integrated circuit such as NTSC decoder, an integrated circuit or part of integrated circuit, in the TV display decodes the visual data.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined method of Morley and Yoshiura to include the decryption integrated circuit encodes the visual data in NTSC format with Macro vision copy protection and the display integrated circuit decodes the visual data as taught by Chauvel to provide a standard protection mechanism for copyrighted program on a single chip while lower overall system cost and reduce the equipment size.

Regarding Claim 36, Morley shows using a light valve to display the image through a display circuit (page 44 lines 12-20).

Regarding Claim 38, Morley shows a display apparatus for displaying encrypted visual data comprising a decryption circuit for decrypting the visual data (page 6 lines 5-32, page 9 lines, 20-30, page 10 lines 1-12, page 11 lines 9-15).

Morley shows a light valve but does not show a diffractive light valve. Kowarz shows

using a diffractive light valve (page 1 sections 0002, 0004, 0006, page 3 sections 0033, 0036,

page 4 section 0039).

It would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify Morley by using a diffractive light valve to provide a brighter, better quality picture

to the user.

Morley also discloses the display apparatus uses a decryption key for decrypting the

encrypted visual data (page 21 lines 16-32, page 22 lines 1-26, page 44 lines 13-25), wherein the

decryption key resides within the display apparatus so as to be inaccessible from outside the

display apparatus (page 22 lines 20-22; page 10 lines 1-4; page 42 lines decryption key is part of

decryption function and is housed in secure chassis and is not accessible from outside), and

wherein the encrypted visual data was previously generated using a encryption key

corresponding to the private key (page 21 lines 15-24).

Furthermore, Morley acknowledges that any number of a wide variety of encryption

techniques may be used (page 21 lines 15-22).

Morley fails to specifically disclose using a public and private key to decrypt the data and

being generated within display apparatus and communicating the public key from the display

apparatus to an encryption apparatus.

In an analogous art, Yoshiura teaches to use public and private keys for encryption and

being generated within display apparatus and communicating the public key from the display

apparatus to an encryption apparatus (FIG.2, elements 100, 200; Col 11 lines 54-67, Col 12 lines

1-3, purchaser 200 is the display apparatus side generates the private and public keys and send

the public key to the provider 100 to encrypt the content).

It would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify Morley with a private and a public keys for encryption as taught by Yoshiura so

that the data like visual data was more secure and protected during transmission.

Morley does not specifically disclose encoding the visual data before passing to display.

In an analogous art, Chauvel discloses the decryption integrated circuit encodes the visual data in NTSC format with Macro vision copy protection (FIG.1A, 200; FIG.1B; Abstract; Col 1 lines 28-31; Col 5 lines 23-32, 64-67) and inherently discloses a display integrated circuit such as NTSC decoder, an integrated circuit or part of integrated circuit, in the TV display decodes the visual data.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined method of Morley and Yoshiura to include the decryption integrated circuit encodes the visual data in NTSC format with Macro vision copy protection and the display integrated circuit decodes the visual data as taught by Chauvel to provide a standard protection mechanism for copyrighted program on a single chip while lower overall system cost and reduce the equipment size.

4.   Claims 4, 7-8, 10-14, 25-30 and 37are rejected under 35 U.S.C. 103(a) as being unpatentable over Morley et al (WO 99/59335), Yoshiura et al (US 6,499,105 B1) and Chauvel (US 7,301,944) as applied in Claims 1, 19, 35 and 36 and further in view of Kowarz et al (US 2002/0113860).

Regarding Claim 4, Morley discloses generating red, green and blue light and displaying the visual data as a visual image (page 44 lines 12-19).

Morley is silent about combining the red, green and blue light using a prism;

forming a wedge focused light using a compound lens so as to illuminate an array of controllable light modulating elements;

controlling the light modulating elements using the visual data; projecting modulated light onto a scanning mirror; and scanning the modulated light across a display screen using the scanning mirror.

In an analogous art, Kowarz teaches combining the red, green and blue light using a combiner (FIG.19, element 100; Para 52); forming a wedge focused light using a compound lens (element 75; Para 55) so as to illuminate an array of controllable light modulating elements;

controlling the light modulating elements using the visual data (inherent); projecting modulated

light onto a scanning mirror (element 77); and scanning the modulated light across a display

screen (element 90 as shown in FIG.14) using the scanning mirror (Para 41 lines 27-33).

Kowarz does not specifically disclose using a prism as a combiner.

Official Notice is taken that it is well known in the art that a prism can be used as a

combiner.

It would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify Morley to include visual display method as taught by Kowarz for a simpler and

less costly display system.

Regarding Claim 7, Kowarz shows a driver circuit for driving the diffractive light valve

(page 4 sections 0039-0041). Morley also shows a driver circuit (page 44 lines 4-30).

Regarding Claim 8, Kowarz shows scanning a line image over a display screen (page 4

section 0039).

Regarding Claim 10, Morley shows that the transporting of the visual data is electronic

transmission (page 6 lines 27-32).

Regarding Claim 11, Morley shows a variety of electronic transmission means (page 6

lines 27-32).

Regarding Claim 12, Morley shows physically transporting the visual data on a storage

medium (page 39 lines 5-7).

Regarding Claim 13, Morley shows a variety of storage mediums (page 35 lines 22-

31, page 36 lines 12-24).

Regarding Claim 14, Morley shows a variety of storage mediums (page 35 lines 22-31, page 36 lines 12-24).

Regarding Claim 25, Kowarz shows scanning a line image over a display screen (page 4 section 0039).

Regarding Claim 26, Morley shows that the transporting of the visual data is electronic transmission (page 6 lines 27-32).

Regarding Claim 27, Morley shows a variety of electronic transmission means (page 6 lines 27-32).

Regarding Claim 28, Morley shows a variety of storage mediums (page 35 lines 22-31, page 36 lines 12-24).

Regarding Claim 29, Morley shows a variety of storage mediums (page 35 lines 22-31, page 36 lines 12-24).

Regarding Claim 30, Morley shows a variety of storage mediums (page 35 lines 22-31, page 36 lines 12-24).

Regarding Claim 37, Morley shows a light valve but does not show a diffractive light valve. Kowarz shows using a diffractive light valve (page 1 sections 0002, 0004, 0006, page 3 sections 0033, 0036, page 4 section 0039).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Morley by using a diffractive light valve to provide a brighter, better quality picture to the user.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRED PENG whose telephone number is (571)270-1147. The examiner can normally be reached on Monday-Friday 09:00-18:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on (571) 272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Fred Peng   Vivek Srivastava
Patent Examiner   Supervisory Patent Examiner

/Vivek Srivastava/
Supervisory Patent Examiner, Art Unit 2426